IN THE COURT OF CRIMINAL APPEALS OF TENNESSEE
AT NASHVILLE
Assigned on Briefs October 25, 2005

STATE OF TENNESSEE v. RUSSELL LEE MAZE

Appeal from the Criminal Court for Davidson County
No. 2002-D-2361 Steve Dozier, Judge

No. M2004-02091-CCA-R3-CD - Filed April 28, 2006

In January 2000, a Davidson County jury found the defendant, Russell Lee Maze, guilty of felony Class A aggravated child abuse in connection with injuries that his infant son sustained on May 3, 1999. The defendant appealed his conviction, *State v. Russell Maze*, No. M2000-02249-CCA-R3-CD (Tenn. Crim. App., Nashville, Aug. 16, 2002), and while his case was on appeal, the child died on October 25, 2000. Because the trial court erroneously failed to instruct the jury on knowing and reckless aggravated assault, knowing and reckless assault, and child abuse as lesser included offenses, the defendant's conviction was reversed, and the case was remanded for a new trial. The state then sought and obtained a superseding indictment charging the defendant with first degree felony murder and aggravated child abuse. A Davidson County jury convicted the defendant of both counts in April 2004, and the trial court sentenced the defendant to life imprisonment on the felony murder conviction and to 25 years as a violent offender on the aggravated child abuse conviction with concurrent service of that sentence to life imprisonment. On appeal, the defendant challenges the sufficiency of the convicting evidence, complains that the trial court prejudicially erred in not allowing certain defense expert-witness testimony, and claims that he was denied a fair trial because the jury was exposed to extraneous influences from third parties. After an extensive review of the record, the briefs of the parties, and applicable law, we affirm the defendant's convictions.

Tenn. R. App. P. 3; Judgments of the Criminal Court are Affirmed.

JAMES CURWOOD WITT, JR., J., delivered the opinion of the court, in which THOMAS T. WOODALL and ROBERT W. WEDEMEYER, JJ., joined.

Dwight E. Scott, Nashville, Tennessee, for the Appellant, Russell Lee Maze.

Paul G. Summers, Attorney General & Reporter; David E. Coenen, Assistant Attorney General; Victor S. Johnson, III, District Attorney General; and Karin Miller and Brian K. Holmgren, Assistant District Attorneys General, for the Appellee, State of Tennessee.

OPINION

At the outset, we note that the defendant fiercely contested the charges in this case, and both he and the state introduced prodigious expert medical evidence to support their respective positions. Accordingly and because the defendant has raised sufficiency of the convicting evidence, our summary of the proof will be rather detailed. As always, in reviewing evidence sufficiency we afford the State of Tennessee the strongest legitimate view of the evidence contained in the record as well as all reasonable and legitimate inferences which may be drawn from the evidence. *See, e.g.*, *State v. Elkins*, 102 S.W.3d 578, 581 (Tenn. 2003).

On the afternoon of May 3, 1999, the defendant and his five-week old infant son were alone in their apartment residence at 320 Welch Road in Davidson County. The defendant's wife, who had been taking care of the infant earlier in the day, had gone to the grocery store and to pick up a fast-food lunch for herself and her husband. Something happened to the infant, prompting the defendant to call E 911 and report that the infant was not breathing.

Nashville Fire Department paramedics Anthony Bryant and Carl Evans responded to the emergency call and described at trial what they found and how they reacted. Mr. Evans testified that when he reached the apartment front door, another emergency fireman handed him an infant who was not breathing, was unresponsive, and had no pulse. Mr. Evans immediately commenced CPR and performed mouth-to-mouth resuscitation and chest compressions as he carried the infant to the ambulance. He insisted that his actions would not have broken the infant's clavicle. Mr. Evans did not speak with the defendant, but Mr. Evans recalled briefly seeing the defendant dressed in blue jeans and a tee shirt with damp hair.

Mr. Bryant was waiting in the back of the ambulance and connected a heart monitor to the infant. He testified that the infant was not breathing and had no pulse. The heart monitor showed no activity. Just as the ambulance was preparing to leave for Vanderbilt Hospital, however, the infant's heart began beating spontaneously, and Mr. Bryant intubated the child to induce breathing. He described the child's pupils as fixed and dilated indicating to him that the child had been oxygen deprived for some time.

The defendant's wife arrived before the ambulance departed for the hospital. Metro Police Detective Robert Anderson was outside the apartment at the time, and he observed the wife drive up and stop abruptly. She began screaming "What has happened?" as the detective and the defendant walked toward her. Detective Anderson described the wife as confused and upset, and the defendant, who appeared calm, held and comforted her. Detective Anderson drove the couple to the hospital, directed them to a waiting room, and located a doctor. After the doctor spoke to the couple, Detective Anderson inquired into what had happened. The defendant related that he was getting ready to go to work, and the baby at that time was "fine." The defendant said he went to the bathroom and when he checked on the child approximately 15 minutes later, the child was "pale white." The defendant told the detective that he used a stethoscope to check for a heart beat, and when he heard a slight beat, he called 911 and began CPR.

At the hospital, the infant was admitted to the intensive care unit where he received emergency treatment and underwent diagnostic testing. Vanderbilt emergency-room physician, Ian Jones, performed the initial examination. He testified that the infant appeared to have a "very significant neurological insult," was not breathing on his own or moving spontaneously, and was effectively in a coma. Doctor Jones interviewed the parents to obtain a medical history. The defendant did not mention any traumatic injury; the defendant told the doctor that the infant was "fussy" and had a low-grade temperature, and the defendant claimed that after showering that day, he found the infant unresponsive and not breathing.

Doctor Jones testified that the infant had no signs of infection, and a spinal tap proved negative for meningitis. Because he observed bruising about the child's head and chest, Dr. Jones was suspicious of traumatic injury and ordered a CAT (Computerized Axial Tomography) scan. On cross-examination, he reported that the CAT scan revealed no injuries to the child's internal organs, such as liver, kidneys, and spleen. In addition, he explained on cross-examination that trauma can have curious indicators and that he had seen individuals with significant abdominal bruising but no internal-organ injury and vice versa.

Through cross-examination, the defense pointed out errors and omissions in Dr. Jones's hospital notes, such as the failure to note bruising and the failure to show whether he had inquired about birth defects or other aspects of the child's medical history. The doctor's notes reflected an "unremarkable" past medical history. The notes incorrectly reflected that the infant was full term when born.

On redirect examination and by way of explanation regarding his notes, Dr. Jones said that his initial role and focus were to stabilize the critically injured infant. His findings were that the infant had a "subarachnoid bleed" in the layers of the brain, a brain contusion, and a subdural hemorrhage. He could not recall if he knew at the time that the infant also had retinal hemorrhages.

Doctor Suzanne Starling, who was qualified as an expert in the fields of pediatric medicine and child abuse, including head trauma, testified that she received a telephone call at approximately 5:00 p.m., asking that she consult with the physicians in intensive care and assist in evaluating the infant's condition. She testified that the child was in a coma and had no normal reflexes when she first saw him. Doctor Starling described the infant's injuries as "fairly obvious," and they included bruising along the eye area, subconjunctival and retinal hemorrhaging in both eyes, and abdominal bruising. To Dr. Starling, the injuries indicated "abusive head trauma," which could not have been self-inflicted by a four-to-five-week-old infant.

Doctor Starling explained that when small children stop breathing or their hearts stop beating, they likely are suffering from a very severe and overwhelming infection or from some type of injury. Testing performed on the defendant's son to detect meningitis, sepsis, abnormal liver functions, and bleeding disorders proved negative. A CAT scan, however, showed significant damage and bleeding to the brain that obviously accounted for the coma. Doctor Starling summarized, "[I]t was clear that his brain had been damaged and caused all of his symptoms."

Once Dr. Starling determined the nature of the injuries, she interviewed separately the defendant and his wife to obtain a medical history and find out what had happened to the child. The defendant told her that the previous day he had taken care of the baby after his wife left for work around 1:00 p.m. Although not normally "fussy," the baby had cried constantly. His wife came home at midnight, but she also was unable to comfort the baby. According to the defendant, the baby remained "fussy" and never slept that night. The following afternoon, the defendant's wife left to go to the store, and after watching television for a time, the defendant decided to shave and shower. The defendant told Dr. Starling that as he was about to step into the tub, he noticed that the infant was no longer "fussing." He said that when he checked, the infant was pale and gasping, and his eyes were only partially opened. The defendant picked up the limp infant, and he said that he "patted" him on the face to revive him and checked the infant's heart with a stethoscope. When the infant stopped breathing, the defendant called E 911 and initiated CPR.

Upon further questioning by Dr. Starling, the defendant denied that his wife could have injured the infant. The defendant could not explain the bruising on the child's face, but he told Dr. Starling that the abdominal bruising may have been caused by massaging the child's stomach to soothe stomach pains. Doctor Starling testified that the defendant's explanation for the baby's injuries did not coincide with her observations and findings.

When Dr. Starling interviewed the defendant's wife, the wife also described the child as being in good health until the previous day. The wife related that the defendant contacted her at work at 7:30 p.m. to report that the baby was very "fussy." When the wife finished work and returned home at midnight, she fed the baby four ounces of liquid that he promptly vomited. The baby tolerated his feeding at 5 a.m., but he again vomited when fed at 8:30 a.m. The wife described the child as fussy throughout the night. At noon, the child had a slight temperature, was "whimpering," and dozed with his eyes half open. She gave the child a dropper of Tylenol and left to go the store. Approximately 40 minutes later, she returned to the apartment and saw the ambulance in the driveway. The defendant told his wife that the baby had collapsed and that he had called E 911.

Doctor Starling asked the defendant's wife about the baby's facial bruising. The wife had noticed the bruising three to four days earlier but could not account for the source. The abdominal bruising was more recent; the wife mentioned the abdominal massaging, but she did not believe that the massaging caused that bruising. The defendant's wife began crying when Dr. Starling compared the baby's brain injury with that seen in automobile accidents. The wife denied harming the baby, and she refused to believe that her husband caused the injuries.

Doctor Starling diagnosed the child as having "a constellation of things wrong with him," including the brain injury, massive internal bleeding throughout the brain area, and a fractured collar bone. In her opinion, when the injuries were viewed in combination, "the only way . . . [to] get that significant an injury in all those places is to be a battered child." Doctor Starling stated that "abusive head trauma" or "inflicted cerebral trauma," more commonly known as "battered child syndrome" or "shaken-baby syndrome," is a recognized medial diagnosis that can actually be coded

for billing and insurance purposes. The major diagnostic features of the syndrome/trauma include: (1) the child's medical history does not account for the injuries; (2) the primary care givers provide different or conflicting accounts of the injuries; (3) the care givers's versions of events will change over time; and (4) the child exhibits swelling inside the brain, bleeding inside and around the brain, and retinal hemorrhages. In terms of brain swelling, Dr. Starling explained that it presses upon brain areas that regulate breathing and heart circulation and "forces the body to shut down."

Doctor Starling testified that the infant had "definitely suffered from abusive head trauma," and she could name no other equivalent trauma that would cause similar patterns of injuries. She excluded premature birth and other pregnancy complications, such as hypertension or gestational diabetes, as making a child more vulnerable to such injuries. She also identified x-rays showing the infant's fractured clavicle bone, and she estimated that the fracture was recent because the x-rays did not detect any callus development. Doctor Starling had seen clavicle fractures in other infants who had been shaken, and she demonstrated how the injury could have occurred. Doctor Starling testified that injuries similar to the infant's usually lead to a "neurovegetative" state, but she did not expect the defendant's child to survive his injuries.

Defense cross-examination of Dr. Starling was aimed at identifying medical mistakes in the case and attempting to link the infant's injuries to pre-existing medical conditions. Doctor Starling acknowledged that the baby was born prematurely, had neonatal jaundice, and the mother had pregnancy complications, including hypertension and gestational diabetes. Doctor Starling, however, disclaimed any connection among these conditions and the infant's head trauma. She said that the parents informed her that the child was healthy although born prematurely. Doctor Starling agreed that retinal hemorrhaging can be a natural result of child birth, but she added that such natural hemorrhaging usually clears up within several days; furthermore, although brain swelling is associated with retinal hemorrhages, it does not cause the hemorrhages. Doctor Starling testified that the infant did not have Alagille Syndrome, an inherited liver disorder that can cause clotting dysfunctions.

The defense questioned Dr. Starling about adverse side effects from Hepatitis B vaccines, which the defendant's newborn baby had received as part of the medical protocol in place at the time. Doctor Starling was aware that approximately four months after the child was born, the U.S. Public Health Service and the American Academy of Pediatrics called for the elimination of mercury content in childhood vaccines, including Hepatitis B, and recommended a roll back on vaccinating all newborn infants with the Hepatitis B vaccine. She explained that most vaccines are preserved in "thimerosal," which contains trace amounts of mercury, and she recognized that ingesting "massive amounts of mercury" can cause brain damage. Doctor Starling was aware, however, of no credible scientific evidence showing any "neurologic devastation" associated with Hepatitis B vaccines. In addition, she flatly disagreed that the Hepatitis B vaccine can lead to retinal hemorrhaging.

Doctor Starling conceded that the scientific community disagreed whether infant shaking, without impact, can create enough force to cause subdural hematomas and retinal

hemorrhages. Even so, Dr. Starling opined that regardless of impact, shaking is abusive and causes abusive injuries. Doctor Starling knew that a CAT scan showed the infant's abdomen to be normal but also indicated depressed boney fragments in the infant's brain, suggesting an old fracture. However, none of the x-rays or other testing could confirm the existence of such a fracture, and in Dr. Starling's opinion the infant sustained one brain injury that occurred very close in time to the infant's collapse.

The defense criticized the one-day delay in obtaining x-rays, which revealed the fractured clavicle. Doctor Starling noted that the primary concern was saving the infant's life, and a fractured clavicle was not a life threatening injury. In terms of common injuries, Dr. Starling stated that clavicle fractures are uncommon in infants who are too young to walk, run, and play.

On redirect examination, Dr. Starling reiterated that no explanation accounted for the totality of the infant's injuries on May 3 other than abusive and non-accidental head trauma.

Doctor Mark Jennings, a board certified physician in pediatrics and neurology, was qualified by the state and accepted as an expert in his fields of speciality. Doctor Jennings was on duty at Vanderbilt University on the evening of May 3, and he saw the infant at approximately 11:40 p.m. The infant was comatose, made no spontaneous or purposeful movements, had no visual function or pupillary reflexes, and had no grimace or gag reflexes. Doctor Jennings did observe occasional abrupt jerking movements of the limbs that he attributed to seizure activity. Doctor Jennings remained the tending neurologist until the infant's death on October 25, 2000.

The doctor testified in detail about the findings from the MRI scans performed on May 12. He pointed out a large collection of blood mainly on the left side of the upper part of the brain indicating a "severe acceleration-deceleration injury." He reconstructed the injury as resulting from a blow applied to the left forehead; "the baby's head was then struck against an object hitting primarily the right parietal occipital area and posterial portion of the skull" which threw the infant's head "back and then may've rebounded forward again in order to produce [the] acceleration/deceleration injury." Doctor Jennings also observed that pressure within the brain increased to the point of causing a "herniation syndrome," meaning that the pressure forced the brain "down through the boney opening at the base of the skull." The head trauma was non-accidental in his opinion.

Doctor Jennings testified that the infant's injuries could not have occurred days – or even hours – before the defendant summoned emergency services. The doctor described the injuries as life-threatening and said that the infant essentially "died at the scene [and] was resuscitated." According to Dr. Jennings, the infant's injuries were the type that "arrest any further development of [ ] neurologic and intellectual function."

Doctor Jennings attended the infant until May 29, when the infant was discharged from the hospital and placed in foster care with Sandra Roberts. The infant required constant care; his respiration had to be closely monitored, and he could not swallow unassisted. Doctor Jennings

saw the infant on an out-patient basis on six occasions through October 11, 2000. Nine days later, on October 19, the infant was readmitted to Vanderbilt Hospital, and the infant died on October 25. Doctor Jennings explained that as a result of the May 3 injuries, the infant had severe cerebral palsy and recurrent seizures that became worse over time. Doctor Jennings had no doubt that the infant's medical problems were the direct result of the May 3 head trauma, and he described the problems as "progressive, predictable, perhaps, almost inevitable."

When brought to the hospital on October 19, the infant was profoundly comatose with signs of multi-organ failure. He had elevated liver functions meaning that the liver was not making the necessary enzymes to clot blood. From autopsy slides, Dr. Jennings knew that the infant's liver showed signs of "hepatic necrosis," or, in other words, dead liver tissue. Doctor Jennings specified that he had checked liver enzymes throughout the time he saw the infant on an out-patient basis, including the last visit on October 10. He explained that liver injury is a possible side effect of the anticonvulsants being given to control seizures. Doctor Jennings testified that the infant never displayed liver disease prior to the October 19 hospitalization, and in his medical opinion, the infant did not have a pre-existing liver disease that caused cardiac arrest or interruption of breathing on October 19. He believed that the liver abnormalities "were secondary to the respiratory arrest" of October 19.

On cross-examination, Dr. Jennings disputed that the infant had depressed boney fragments on the right temporal bone suggestive of an old fracture. He testified that he had personally reviewed the infant's films and detected no depressed boney fragments. Doctor Jennings agreed that the infant's neck muscles and spine appeared uninjured, but he said that acceleration-deceleration trauma does not necessarily injure those areas. He acknowledged an existing dispute whether infant shaking alone can cause subdural hemorrhages, and he agreed that a traumatic delivery involving forecepts can cause such hemorrhages. To say that subdural hemorrhages could be caused from crying or coughing by an infant who is premature and has a fragile system, however, "would be stretching the limits of credibility."

Doctor Jennings disagreed that there was no evidence of any impact to the child's head. He testified that the retinal hemorrhages were evidence of external impact and that the internal impact involved the acceleration-deceleration injury. He insisted that "this is not an accidental trauma."

On redirect examination, Dr. Jennings reiterated that he saw no evidence from the scans and films taken in May 1999 that the infant had a prior brain injury or head bleeding.

The infant's regular pediatrician, Dr. Lesa Sutton-Davis, testified that she first saw the infant at her office on April 9, 1999. She described the infant as a healthy newborn, who weighed four pounds nine ounces and was 18.5 inches long. Doctor Sutton-Davis performed a complete physical examination, including neurological and developmental assessments which were normal. The state inquired about medical records purporting to document that the infant's head circumference had increased three centimeters within several days. Doctor Sutton-Davis speculated

that the measurements may have been taken by different nurses who were not using the same location on the infant's head for measurement. At any rate, Dr. Sutton-Davis emphasized that at an office visit on April 26, shortly before the May 3 hospitalization, she saw no injuries or bruising about the infant's head or abdomen, and she saw nothing suggesting any neurological abnormality. She described the infant as alert, cooing responsively, tracking objects, and having normal head control.

Regarding vaccines, Dr. Sutton-Davis testified that the infant's first Hepatitis B vaccine was administered shortly before his hospital release and that the second Hepatitis B vaccine was given on April 26. Doctor Sutton-Davis knew of no complications from the vaccine, and in her medical career, she had never seen an adverse reaction to that vaccine.

On cross-examination, Dr. Sutton-Davis agreed that the Hepatitis B vaccine that the infant received contained mercury. Mercury was later removed from the vaccine "because there was a theoretical concern about causing brain damage," but "[i]t was never proven." She acknowledged there were reports claiming that the vaccine "might be" associated with Gillian-Barre Syndrome or with worsening of multiple sclerosis; these illnesses, she emphasized, do not exhibit the same symptoms seen in shaken-baby syndrome.

Doctor Mary Baraza Taylor, a pediatric, critical-care physician at Vanderbilt Children's Hospital, was in charge of the infant's second hospitalization in October 2000. She was accepted as an expert in the field of pediatric medicine and testified that on October 19, the infant was flown by Life Flight from a daycare facility to the hospital. The infant had been found in his daycare crib in an unresponsive condition, not breathing and without a pulse. The infant regained his pulse, but the doctor estimated a lapse of approximately 20 minutes. She testified that the infant had no meaningful response and no spontaneous movements and showed symptoms of "anoxic brain injury" from lack of oxygen to the brain and other organs, including the liver. Even so, when the infant was admitted, his white blood cell count was normal, and no infection was detected. The infant was declared dead on October 25 at 3:00 p.m.

From the autopsy, Dr. Taylor knew the infant's liver was injured. She explained that a child with severe liver hepatitis typically would have abnormal liver enzymes; in this case, however, the child's liver enzymes were normal prior to October 19 but, thereafter, showed a dramatic change. According to Dr. Taylor, an individual with fatal liver disease would gradually go into a coma and die after a period of days.

The state called Investigator Lee Allen with the Department of Children's Services in Davidson County and Detective Ron Carter who was assigned to Youth Services and investigated reports of child sexual and physical abuse. Investigator Allen was involved only briefly with the case. He was dispatched to Vanderbilt Hospital in May 1999 where he first observed the child and then interviewed the parents. Testifying from his admittedly "sketchy" handwritten notes, Investigator Allen said that the defendant attributed the bruising on the child's head to an earlier injury caused by the aspirator and the stomach bruising to stomach cramps. The defendant

maintained that as he was getting into the shower, he noticed that the baby had stopped crying and was pale. The defendant told Investigator Allen that he picked up the baby, who was limp and gasping for air, and that the baby's eyes were half open and dilated. The defendant said that he "tapped [the baby] on the cheek," checked the heart rate with a stethoscope, began CPR, and called E 911.

Detective Carter also was dispatched to Vanderbilt Hospital to investigate the infant's injuries. He spoke with some of the attending physicians and then interviewed the defendant and the defendant's wife. Detective Carter recorded his interview with the defendant, and the state played the tape recording of that interview for the jury and provided a typed transcript. The defendant gave inconsistent statements regarding whether the shower water was running as he listened for the infant. The defendant repeatedly denied shaking the infant, but he eventually conceded first that he "might" have shaken the baby and second that he shook the child because he "freaked out."

Concerning the infant's medical condition after he was discharged from Vanderbilt Hospital on May 28, 1999, the state offered the testimony of Sandra Roberts. She cared for the infant through his death in October 2000. Ms. Roberts, a social worker with the Center for Family Development in Bedford County, explained that she and her husband had received foster-care training involving children with special needs and that they had accepted a request to be foster parents for the defendant's son.

Ms. Roberts testified that the hospital supplied a large amount of equipment to care for the infant who could not feed himself or swallow and could not sit up or crawl. The infant had seizures on a daily basis and was frequently congested. Because of the possible side effects from the seizure medicines, the infant's blood was tested frequently. Ms. Roberts noticed no negative reactions to any vaccines that the infant received. Ms. Roberts gradually came to the conclusion that the infant was doing well enough to attend the daycare facility where she worked, and one of the Vanderbilt physicians approved the arrangement. On the morning of October 19, her husband took the infant to daycare. Ms. Roberts testified that she had noticed no breathing problems, and the infant's skin color was normal.

On cross-examination, Ms. Roberts said that she would not describe the child as vegetative; rather, he was "very limited" but had a personality and a limited range of emotions. Ms. Roberts was not expecting the infant's sudden collapse on October 19, although she knew that the prognosis for the child was an early death.

The state's final witness was Bruce Levy, the chief medical examiner for Tennessee and the county medical examiner for Davidson County. Doctor Levy performed an autopsy on the infant on October 26, 2000. He ruled the manner of death to be a homicide and testified, "I determined the cause of death as anoxic encephalopathy due to a seizure disorder due to shaken-baby syndrome. The anoxic encephalopathy is a condition when the brain is deprived of oxygen for a long

period of time." Doctor Levy identified a seizure as causing the infant to stop breathing and related the underlying cause for the seizure disorder as being the head injury in May 1999.

Although liver disease was not noted in his medical report, Dr. Levy testified that he found liver damage to those areas more sensitive to oxygen deprivation. With an infectious disease, such as hepatitis, the damage to the organ would be more uniform. In his opinion, nothing indicated that the infant's liver disorder caused or contributed to death. As corroboration, Dr. Levy noted that from May 1999 through October 10, 2000, the infant's liver enzymes were normal, but they became markedly elevated as of October 19, 2000, and continued to elevate. Those test results were consistent with an acute hepatic injury rather than a chronic hepatitis infection. He also opined that nothing unrelated to the original brain injury of May 3, 1999, caused or contributed to the infant's death in October 2000.

On cross-examination, the defense attacked the credibility of Dr. Levy's findings and autopsy report. He admitted that the autopsy report incorrectly referred to a healed fracture of the right clavicle, instead of the left clavicle, and incorrectly noted that the infant was circumcised. He agreed with the defense that the cause of the brain injury could not be determined merely by performing an autopsy and observing an old injury. He also agreed that up to one-third of babies are born with retinal hemorrhages. He specifically disputed, however, any notion that the degree of liver injury in the infant was severe enough to independently cause death.

The defense opened its proof with the testimony of the defendant. He outlined his background, his marriage in 1998, and the birth of his son on March 25, 1999. The defendant worked throughout his wife's pregnancy, but he arranged his schedule to attend all of his wife's prenatal doctor's appointments, except one. He described himself as involved in all facets of the pregnancy. The defendant gave an emotional account of the premature birth of his son, and he spoke of going to the hospital every day even though he was working full time.

The defendant testified that his son had an irregular heartbeat and required monitoring after birth. After coming home, his son was "fussy," had irritable bowel movements, and had crying spells when he could not be consoled. The crying episodes increased in length, and he and his wife became very concerned. According to the defendant, a physician who saw the infant on a weekend said that he and his wife were "over anxious" parents and predicted that the bowel movements would become regulated. The defendant denied that the infant's crying made him mad or upset him. Regarding any discoloration or bruising, the defendant said that he and his wife had noticed some skin discoloration, including a "blotchy mark" when the infant left the hospital, a bruise on the left side of the infant's head, a more recent bruise on the right side of the infant's forehead, which he attributed to his wife's wristwatch or the infant's aspirator, and a light bruise on the infant's stomach.

The defendant explained that the weekend preceding May 3, he was working the 3:00 a.m. to noon shift and that his wife had obtained a part-time job and was also working that weekend. The defendant said that during the weekend, the infant's bowel-movement problems persisted, and the infant could not digest any food. That weekend, the crying episodes increased, and the infant

could not be consoled. The defendant was home with the infant from noon on Sunday, May 2, until midnight. During that time, he called his wife at work several times to report that the infant was crying constantly. The defendant left for work Monday morning at 3:30 a.m., and his wife took over caring for the child. He said that when he returned home at 12:20 p.m., his wife told him that the child could not keep any food down, had been up all night "fussing," and had a fever of 100.6 degrees, which she treated with baby Tylenol.

The defendant suggested that his wife drive to get formula for the child and take-out food so they would not have to cook. While his wife was gone, the defendant played with the infant and tried entertaining the infant with television. The defendant claimed that the baby was laughing, cooing, and kicking at that time but later became sleepy. The defendant placed the baby on his back in the crib and went across the hall to the bathroom to shave. The defendant said that he walked back and forth checking on the infant who was sleeping. After shaving, the defendant decided to take a shower, but after he disrobed and reached to turn on the water, he noticed that the baby was making no noises. He immediately went to the crib and "upon doing that, [he] found that [the infant] was pale white"; he picked up the child, "called out [the infant's] name, [ ] rubbed [the infant's] little cheeks, [and] rubbed [the infant's head]. The defendant described the infant as limp and lifeless, and the defendant testified that he felt "utter panic." The defendant called emergency services and began CPR after he checked the infant's heart rate.

The defendant was asked whether he shook the baby at all. He responded, "[N]ot that I recall . . . I may have." Claiming that his memory of the events was unclear, the defendant said that "what [he] considered shaking was not the point that was described on May 3rd." According to the defendant, the purpose of the shaking was to revive or awaken the infant. He described what he did as "jostling" rather than shaking. The emergency-services employee on the telephone instructed the defendant to place the infant on a hard surface, to stop full CPR, and to begin breathing for the infant. The defendant testified that he complied, and within three to four minutes, emergency medical help arrived. The defendant did not remember when he dressed, but he recalled being concerned with appearing totally naked when help arrived.

The defendant described running to the ambulance to check on the infant and what happened when his wife arrived. The defendant admitted that at the hospital, he told the doctor about the child's faint heartbeat but did not mention that he had shaken the child. The defendant's only explanation was, "I wouldn't – I wasn't thinking in that manner." The defendant denied intentionally lying to the officers and physicians and said that he was very emotional and distraught. He agreed that he initially denied to Detective Carter that he had shaken the baby, but the defendant said that "what [he] thought that [Detective Carter] was talking about the shaking in a violent way, not in the way that [he] had to revive [the infant]." Later, the defendant decided that it was important to advise the detective that he had "jostled" the baby to revive him.

On cross-examination, the state emphasized the defendant's failure to advise any of the medical personnel about shaking the child. The defendant admitted the shaking to Detective Carter only after being repeatedly asked. As for his earlier denials, the defendant testified that he "was trying to determine between jostling and shaking" by the detective's definition, and he insisted

that he did not shake the infant "to the violent extent" to which the doctors referred. When, however, the defendant made his admission to Detective Carter, the defendant prefaced it by saying that he would only talk outside his wife's presence because he did not want his wife to know what happened. The defendant claimed on cross-examination that he made the statement because he wanted the opportunity to tell his wife first.

The state also challenged the defendant's claim that, while shaving in the bathroom with an electric razor buzzing, he could hear the infant in the crib across the hall, and the state pointed out that the defendant had made inconsistent statements regarding whether the shower water was running.

The defendant did not believe the CPR that the fireman started on his son would have caused the injuries seen at the hospital. Regarding the fractured clavicle, the defendant acknowledged the possibility that he could have caused the injury. He explained, "I think, when I picked him up outta the crib and jostled him to revive him or to see if he was responsive, I possibly could have done that then."

The defense also presented the testimony of his wife, sister-in-law, aunt, and uncle. The sister-in-law, Sandra Hicks, testified briefly that she was in the defendant's home and spent time with the infant. Ms. Hicks characterized the defendant as a very good father. The infant, she said, was bright eyed but cried a lot and did not rest. She also noticed that the size of the infant's head seemed to be large, and the infant did not have a soft spot on the top of his head. Ms. Hicks never saw the defendant become frustrated or angry with the baby even when the baby cried.

Kathy Stanton, the defendant's aunt, spent a lot of time with the infant. She observed that the infant had a red spot around his left temple shortly after being discharged from the hospital, and she noticed an area around the infant's soft spot that appeared to be bulging. Even so, the infant appeared normal in April 1999 as contrasted with the infant's appearance when Ms. Stanton visited with him in foster care. The defendant's uncle, William Stanton, testified about peculiar things he noticed, such as a red spot on the side of the infant's head and the cone shaped feature of the infant's head. Mr. Stanton visited twice after the infant was transferred to foster care. Mr. Stanton described the infant as sick but capable of limited responses. The infant did not appear to be in a vegetative state.

The defendant's wife, Kaye Maze, testified and related her pregnancy complications, which included cramps, bleeding, gestational diabetes, hypertension, and low amniotic fluid. Ms. Maze was unable to work during her pregnancy. The umbilical cord was wrapped twice around the infant's neck when he was delivered, and his heart rate was fast. The infant's skin was blotchy and appeared swollen around the face and eyes. When vaccinated for Hepatitis B at the hospital, the infant weighed four pounds. Seven days after receiving the second Hepatitis B vaccine, the infant collapsed, and during that seven-day period, Ms. Maze said that the infant developed a slight discoloration on his temple and seemed to get "fussier and fussier."

Ms. Maze related her activities during the weekend preceding May 3 and how she had not slept Sunday night because the infant could not be consoled. When the defendant came home on Monday afternoon at 12:30, he offered to care for the infant to allow her to drive to the store for more baby formula and to bring back take-out food. Ms. Maze estimated that she was away from the residence for approximately 40 minutes, and when she left, her husband did not appear angry or frustrated. Upon her return, Ms. Maze encountered the ambulance, and she recalled being driven by the police to the hospital. At the hospital, she remembered Dr. Starling saying that the defendant had done something to hurt the child and that the child was not expected to live.

On cross-examination, Ms. Maze admitted the possibility that she told Dr. Starling that the infant was normal until brought to the hospital and that she told Detective Carter that the baby did not become fussy until she began her part-time job. She recalled telling Detective Carter at the hospital that the bruises first appeared the weekend that she began her part-time employment.

Ms. Maze did not believe that her child was a victim of child abuse, and she and the defendant were still married. The defendant did admit to her that in the course of trying to save the infant's life, it was possible that he "might" have shaken the baby and that in picking up the child, it was possible that he could have fractured the clavicle. Ms. Maze was convicted of reckless aggravated assault and failure to protect in May 2000.

The remaining defense witnesses were physicians. Doctor Nicole Schlechter was Ms. Maze's attending obstetrics and gynecology physician. During pregnancy, Ms. Maze had chronic hypertension, gestational diabetes, inter-uterine growth restriction, and low amniotic fluid level, and Dr. Schlechter categorized the pregnancy as "high risk." Doctor Schlechter did not use forceps to deliver the baby; she considered the baby to be healthy, despite being small for his gestational age, and detected no adverse effects from the mother's pregnancy complications.

The defense qualified Dr. Edward N. Willey as an expert in pathology. Doctor Willey was licensed to practice in Florida and Michigan, was board certified in anatomical pathology, and had studied childhood head injuries and trauma. He had reviewed Dr. Levy's autopsy report and the autopsy slides, and Dr. Willey criticized Dr. Levy's failure to document the infant's severe liver disease. In Dr. Willey's opinion, the liver disease was fatal and was "a reasonable explanation for death." Doctor Willey also noted that the autopsy report failed to mention an abnormal diaphragm, probably an inherited disease, that would make it difficult to breathe.

Doctor Willey did not believe it medically reasonable to attribute the death of the child in October 2000 to a trauma that occurred on May 3, 1999. He explained, "With the acute onset of liver damage . . . that's sufficient to explain death." He also did not believe that the abnormal liver enzymes were the result of the infant's respiratory arrest on October 19. He attributed the liver enzymes to an aggressive hepatitis and testified that hepatitis is not caused by anoxia.

On cross-examination, the state challenged Dr. Willey's hepatitis diagnosis. Doctor Willey, however, insisted that the autopsy slides showed an "inflammatory component" and that "most of the [liver] cells were falling apart in the center," which indicated a form of hepatitis

probably caused by a virus. He refused to agree that oxygen deprivation for 15 to 20 minutes would cause the degree of liver damage shown on the slides, although he did acknowledge that oxygen deprivation would elevate the liver enzymes. Doctor Willey agreed, however, that hepatitis generally does not cause cessation of breathing. Whatever the cause, Dr. Willey maintained that the myopathy of the infant's diaphragm aggravated the situation. Doctor Willey did not dispute that the infant had definite and severe brain injuries.

Defense witness Mary Kay Washington was a professor of pathology at Vanderbilt and board certified in anatomical and clinical pathology, with expertise in liver and gastrointestinal pathology. As had Dr. Willey, Dr. Washington criticized Dr. Levy's autopsy findings that the infant's liver was essentially normal. She testified that significant abnormalities appeared in the infant's liver. The abnormalities and inflammation indicated a pattern of injury attributable to hepatitis, not simply low blood flow to the organ, and Dr. Washington opined that the "degree of liver injury certainly could've been a significant contribution to death." Doctor Washington opined the hepatitis could have been caused by a virus or by the ingestion of numerous anti-seizure medications.

On cross-examination, the state elicited Dr. Washington's concession that the infant's brain injury was the overriding cause of death. She testified, "I think the liver injury could have contributed, but I think the brain injury alone would've been sufficient." In addition, Dr. Washington said that the infant's breathing cessessation on October 19 was not caused by any underlying liver disorder. The immediate cause of death on October 19 was insufficient oxygen to the brain.

From the testimony and evidence presented, the jury found the defendant guilty of first degree felony murder and aggravated child abuse. The defendant timely appealed his convictions, and the case is properly before this court for consideration and disposition.

I. Sufficiency of the Evidence

An appellate court's standard for reviewing a sufficiency challenge is "whether, considering the evidence in a light most favorable to the prosecution, any rational trier of fact could have found the essential elements of the crime beyond a reasonable doubt." *State v. Reid*, 91 S.W.3d 247, 276 (Tenn. 2002); *see also* Tenn. R. App. P. 13(e); *Jackson v. Virginia*, 443 U.S. 307, 319, 99 S. Ct. 2781 (1979); *State v. Hall*, 8 S.W.3d 593, 599 (Tenn. 1999). Because a verdict of guilt removes the presumption of innocence and imposes a presumption of guilt, the burden shifts to the defendant upon conviction to show why the evidence is insufficient to support the verdict. *See State v. Evans*, 108 S.W.3d 231, 237 (Tenn. 2003); *State v. Carruthers*, 35 S.W.3d 516, 557-58 (Tenn. 2000); *State v. Tuggle*, 639 S.W.2d 913, 914 (Tenn. 1982). On appeal, the state is entitled to the strongest legitimate view of the evidence and to all reasonable and legitimate inferences that may be drawn therefrom. *State v. Smith*, 24 S.W.3d 274, 279 (Tenn. 2000); *see also Carruthers*, 35 S.W.3d at 558; *Hall*, 8 S.W.3d at 599.

A verdict of guilt by the trier of fact resolves all conflicts in the evidence in favor of the prosecution's theory. *See State v. Bland*, 958 S.W.2d 651, 659 (Tenn. 1997). "Questions about the credibility of witnesses, the weight and value of the evidence, as well as all factual issues raised by the evidence are resolved by the trier of fact, and [an appellate court] does not re-weigh or re-evaluate the evidence." *Evans*, 108 S.W.3d at 236 (citing *Bland*, 958 S.W.2d at 659). Nor may this court substitute its own inferences drawn from circumstantial evidence for those drawn by the trier of fact. *See id*. at 236-37.

To obtain a conviction for first degree felony murder, the state in this case was required to prove the "killing of another committed in the perpetration of or attempt to perpetrate any . . . aggravated child abuse[.]" Tenn. Code Ann. § 39-13-202(a)(2) (2003). The state need not show that the defendant intended to kill but only that he intended to commit the underlying felony. *Farmer v. State*, 201 Tenn. 107, 115, 296 S.W.2d 879, 883 (1956). As relevant to this case, a person commits aggravated child abuse "who commits the offense of child abuse . . . as defined in § 39-15-401[,] and . . . the act of abuse . . . results in serious bodily injury to the child." *Id*. §§ 39-15-402(a)(1), -15-401(a). Section 39-15-401 defines child abuse and neglect as "[a]ny person who knowingly, other than by accidental means, treats a child under eighteen (18) years of age in such a manner as to inflict injury or neglects such a child so as to adversely affect the child's health and welfare." *Id*. § 39-15-401(a).[1]

The state may establish a material fact by direct evidence, circumstantial evidence, or a combination of the two. *State v. Tharpe*, 726 S.W.2d 896, 899-900 (Tenn. 1987). Before an accused may be convicted of a criminal offense based upon circumstantial evidence, the facts and the circumstances "must be so strong and cogent as to exclude every other reasonable hypothesis save the guilt of the defendant, and that beyond a reasonable doubt." *State v. Crawford*, 225 Tenn.

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[1] Effective July 1, 2005, the legislature amended Code sections 39-15-401 and 39-15-402 to provide, in relevant part, as follows:

> (a) Any person who knowingly, other than by accidental means, treats a child under eighteen (18) years of age in such a manner as to inflict injury commits a Class A misdemeanor; provided, however, that, if the abused child is six (6) years of age or less, the penalty is a class D felony.

Tenn. Code Ann. § 39-15-401(a) (Supp. 2005).

> (a) A person commits the offense of aggravated child abuse or aggravated child neglect or endangerment, who commits the offense of child abuse, as defined in § 39-15-401(a), or who commits the offense of child neglect or endangerment, as defined in § 39-15-401(b), and:
>
> (1) The act of abuse or neglect results in serious bodily injury to the child.

Tenn. Code Ann. § 39-15-402(a)(1) (Supp. 2005).

478, 482, 470 S.W.2d 610, 612 (1971). "A web of guilt must be woven around the defendant from which he cannot escape and from which facts and circumstances the jury could draw no other reasonable inference save the guilt of the defendant beyond a reasonable doubt." *Id*. at 484, 470 S.W.2d at 613.

Whether the victim's injuries were inflicted knowingly or accidentally is a question of fact for the jury. Intent is seldom proved by direct evidence and may therefore be deduced by the trier of fact from the nature and character of the offense and from all of the circumstances surrounding the offense. *See State v. Inlow*, 52 S.W.3d 101, 104-05 (Tenn. Crim. App. 2000); *State v. Holland*, 860 S.W.3d 53, 59 (Tenn. Crim. App. 1993).

The defendant in this case challenges the sufficiency of the evidence on numerous grounds. He maintains (1) that the evidence supported the defense theory that the infant had some pre-existing intercranial pressure, probably from a subdural hemorrhage, which was the result of a spontaneous re-bleeding of an older hemorrhage; (2) that the evidence showed that the infant had significant and fatal liver disease such that it was not medically reasonable to attribute death to the incident that occurred in May 1999; (3) that from examining the brain at the autopsy, it was not possible to determine what caused the injury and that no degree of medical certainty directly tied the cause of death to the May 3, 1999 incident; (4) that the myopathy or deterioration in the infant's diaphragm could not be excluded as contributing to the breathing cessation on October 19, 2000; (5) that the Hepatitis B vaccine administered to the infant contained thimerosal, a preservative containing mercury which can cause brain damage, and that adverse reactions to the Hepatitis B vaccine had been reported; and (6) that the infant was not healthy from birth as a result of pregnancy complications of the defendant's wife.

The state counters and directs our attention to the extensive medical testimony regarding the infant's May 3, 1999 emergency hospitalization involving extensive head trauma, severe brain injury, retinal hemorrahging, bruising, and a fractured clavicle. The infant's injuries, according to the state's expert witnesses, could not have been self-inflicted or accidental; they were consistent with a severe acceleration-deacceleration injury, specifically shaken-baby syndrome. From the nature and extent of the injuries, the infant's life expectancy was not lengthy, and the infant's subsequent death on October 19, 2000, although sudden, was not unexpected and could be traced back to the brain injuries suffered on May 3, 1999. The state also emphasizes that the defendant ultimately admitted to the detective and at trial that he shook the infant and that he could have broken the infant's clavicle.

We begin by noting that 21 days after the May 3, 1999 emergency hospitalization of the defendant's son, the Tennessee Supreme Court abolished the judicially created "year-and-a-day" rule pursuant to which homicide prosecutions were barred unless the victim died within one year and one day of injury. *State v. Rogers*, 992 S.W.2d 393 (Tenn. 1999). The supreme court afforded retroactive application to its decision, *id*. at 401-02, and that application was upheld by the United States Supreme Court as not violating an accused's due process rights under the Fourteenth Amendment to the federal constitution, *Rogers v. Tennessee*, 532 U.S. 451, 121 S. Ct. 1693 (2001). Consequently, although the infant's death in this case did not occur until slightly more than 17

months after the initial emergency hospitalization, the felony murder prosecution was not flawed on that basis. Even so, causation remains an essential element of every homicide offense, *see State v. Farner*, 66 S.W.3d 188, 204 (Tenn. 2001), and our supreme court in *Rogers* emphasized that its decision in no way relieved the state of its burden of proving causation beyond a reasonable doubt, *see Rogers*, 992 S.W.2d at 401.

More often that not, a homicide's causation is not seriously disputed, as little difficulty arises in proving the necessary causal connection between conduct and result. In the instant case, however, causation was seriously and forcefully disputed at trial and on appeal. "[C]ausation in criminal cases generally is a question of fact for a properly instructed jury," and "a jury's determination of the causation issue will be reviewed under the familiar sufficiency of the evidence standard and will not be disturbed by an appellate court so long as the evidence is sufficient to support the jury's determination." *Farner*, 66 S.W.3d at 191.

In this case, it is undisputed that when brought to the hospital on May 3, 1999, the infant, who had been in the defendant's care, was comatose with severe and life-threatening injuries. Doctor Jennings testified that the infant's injuries could *not* have occurred days or even hours before the defendant summoned emergency services. A rational jury, in our opinion, could conclude from the medical evidence and testimony that the infant's "neurologic devastation," per Dr. Starling's description, was not caused by premature birth, jaundice, liver disorder, or Hepatitis B vaccines. The severity of the head trauma and the fractured clavicle belied any innocent or accidental account of what happened, and the jury was entitled to credit Dr. Starling's diagnosis of abusive, inflicted head trauma as the only medically reasonable explanation for the May 3, 1999 injuries. Moreover, the defendant admitted at trial that he had shaken his son, although he insisted that the shaking was not violent, and he conceded that he could have fractured the infant's clavicle. Viewed in the light most favorable to the state, this evidence is sufficient for a rational jury to find beyond a reasonable doubt that the infant's injuries were knowingly inflicted and that the defendant was guilty of aggravated child abuse.

The state elicited evidence of the infant's condition as of May 28, 1999, when he was discharged from the hospital, through the time of his death on October 25, 2000. None of the medical providers had expected the infant to survive the injuries inflicted on May 3, 1999. The injuries, in Dr. Jennings' opinion, "arrest[ed] any further development of [the infant's] neurologic and intellectual function." Ms. Rogers, the infant's foster mother, corroborated that assessment and testified in detail about the infant's inability to feed himself, swallow, crawl, or sit up and about the daily seizures, which required constant medications. The infant, in other words, never recovered from his severe and pervasive May 3, 1999 injuries.

The defense at trial attempted to persuade the jury that the infant's death was attributable to fatal liver disease, brain damage from Hepatitis B vaccine, and/or deterioration in the infant's diaphragm. The jury was entitled to credit the state's medical evidence that no intervening causes unrelated to the original brain injury on May 3, 1999, were responsible for the infant's death. Moreover, we note that despite the conflicting testimony about the onset, cause, and severity of the infant's liver damage, a defense expert witness, Dr. Washington, conceded that the infant's brain

injury was the overriding cause of death and that nothing related to liver disease or hepatitis would account for the breathing cessesation on October 19. The evidence, we hold, was legally sufficient to support the felony murder conviction. *See State v. Vincent Marcel Williams*, No. E2004-00355-CCA-R3-CD, slip op. at 15-16 (Tenn. Crim. App., Knoxville, Apr. 22, 2005) (evidence showed the defendant was the only person with the victim before she was admitted to hospital with severe brain injuries, that defendant admitted he "jerked" or "yanked" the victim up, and that the only medical explanation was that the child had been shaken), *perm. app. denied* (Tenn. Oct. 24, 2005); *State v. Gerald Pendleton*, No. W2003-03043-CCA-R3-CD, slip op. at 9 (Tenn. Crim. App., Jackson, Dec. 20, 2004) (evidence sufficient to sustain conviction of felony murder by aggravated child abuse; defendant was primary caretaker and expert testimony showed that the injury required severe massive force unlikely to be caused by another child), *perm. app. denied* (Tenn. May 9, 2005); *State v. Andrew Neal Davis*, No. M2002-02375-CCA-R3-CD, slip op. at 12 (Tenn. Crim. App., Nashville, July 9, 2004) (evidence showed that victim died as a result of severe blunt force injuries to the head, indicating injuries were not accidental, and that severity of injuries was not consistent with defendant's explanation that he accidently dropped the child), *perm. app. denied* (Tenn. Dec. 6, 2004); *State v. Christopher Lovin*, No. E2002-01231-CCA-R3-CD, slip op. at 5-6 (Tenn. Crim. App., Oct. 31, 2003) (evidence sufficient for felony murder by aggravated child abuse conviction; medical evidence showed that victim died from head injuries resulting from violent shaking and internal bleeding due to blunt force trauma; jury rejected defendant's claim that he had only gently shaken victim's leg and severity of injuries belied defendant's explanation).

II. Motion in Limine for Additional Defense Expert

In his next issue, the defendant assails the trial court's exclusion of expert testimony by Massachusetts pediatrician F. Edward Yazbak. The issue arises in the context of (1) a notice, filed four days before trial, that the defense proposed to call Dr. Yazbak and a request that the court permit the expert testimony, and (2) a defense motion in limine, filed after the trial had commenced, that the court permit Dr. Yazbak to testify to rebut various opinions given by state expert witnesses. In a jury-out hearing, the trial court extensively quizzed defense counsel about the timing of the notice, when the proposed expert had been located, and whether the defense had known that it needed to be prepared for certain issues. From the trial court's ruling, we glean that the trial court treated the matter as a discovery notification issue. In pertinent part, the court ruled as follows:

> The issues that're set forth in [the] motion in limine, dealing with Hepatitis B vaccine; the retinal hemorrhaging, and subdural hemorrhaging; the lack of injuries to neck muscles and spine, attributable or not attributable to shaken-baby syndrome, have all been know[n] . . . [and] many of them addressed in the prior trial.
>
> . . . But those issues about the vaccine, the injuries, the retainal hemorrhaging, have been known for years.
>
> I think it would be fairly clear . . . if this issue were reversed, whereby the State gave notice the weekend before trial, that they were

adding an additional expert about any of these particular issues, the Defense would be screaming up and down about notice and unnecessary surprise.

. . . .

So, to say that there should be some differing standard or differing ruling, when the coin is flipped, that is, that it's the Defendant giving late notice of a potential expert witness, who's a witness on issues that they've known about for two or three years, is not fair.

. . . .

So, because the issues have been known for years, and because they're just – those issues are being asked about in cross-examination, through – by way of the Defense Attorney, and the answers that are being received aren't what the Defendant wanted, does not mean that we should then delay this trial or add an additional witness, that has not been proper discovery notice and information given about.

. . . .

And, to wait four days before the trial to suddenly say, "Well, we possibly found somebody," you know, there's wouldn't be [a] question it wouldn't be allowed from the State trying to do that.

And I don't know why there should be [a] difference, from the Defense standpoint, when there are medical doctors and personnel, and have been medical doctors and personnel already testified, and those that're prepared to testify for the defense, that can be asked about those, and a fair trial given.

So, I'll deny the motion. All right. Let the Jury step back up.

As we view the matter, two issues require consideration: (1) whether exclusion of expert testimony was an appropriate course of action based on claimed discovery violations; and (2) whether the constitutional right to present a defense was violated by the exclusion of the expert testimony. Regarding criminal procedure discovery rules, there is no mandatory exclusion that follows a violation. Criminal Procedure Rule 16(d)(2) provides,

Failure to Comply With a Request. If at any time during the course of the proceedings it is brought to the attention of the court

> that a party has failed to comply with this rule, the court may order such party to permit the discovery or inspection, grant a continuance, or prohibit the party from introducing evidence not disclosed, or it may enter such other order as it deems just under the circumstances. The court may specify the time, place, and manner of making the discovery and inspection and may prescribe such terms and conditions as are just.

Tenn. R. Crim. P. 16(d)(2). Indeed, exclusion is disfavored.

> [E]vidence should not be excluded except when it is shown that a party is actually prejudiced by the failure to comply with the discovery order and that the prejudice cannot be otherwise eradicated. See Rule 16(d)(2). The exclusionary rule should not be invoked merely to punish either the State or the defendant for the deliberate conduct of counsel in failing to comply with a discovery order. The court's contempt powers should be employed for this purpose. Rules 12 and 16, as well as the other Rules of Criminal Procedure were adopted to promote justice; they should not be employed to frustrate justice by lightly depriving the State or the defendant of competent evidence.

State v. Garland, 617 S.W.2d 176, 185-86 (Tenn. Crim. App. 1981); *see State v. John Joslin*, No. 03C01-9510-CR-00299, slip op. at 73-75 (Tenn. Crim. App., Knoxville, Sept. 22, 1997); *State v. James*, 688 S.W.2d 463, 466 (Tenn. Crim. App. 1984); *State v. Briley*, 619 S.W.2d 149, 152 (Tenn. Crim. App. 1981).

Even assuming in this case, that the defense violated the reciprocal discovery provisions of Rule 16, the trial court in our estimation abused its discretion by excluding the testimony of the defendant's expert witness without exploring other possibilities. The trial court was critical of the defense because it knew for a long time about the various medical issues in the case. That criticism, however, serves to highlight similar knowledge that the state possessed. At the hearing, the state complained that the expert testimony had no valid scientific support and that the state was not "in a position to marshal the resources to rebut that kind of novel defense." The trial court, for its part, evidently relied upon the "good-for-the-goose, good-for-the-gander" rule[2] by explaining that it would not allow the defense to do something that the state would not be permitted to do.

[2] The "goose-gander" proverb has evolved through the ages. A rendering of the current saying was recorded in John Ray's *Collection of English Proverbs* (1670) as "That that's good sawce for a goose, is good for a gander." The English writer Roger L'Estrange gave virtually the modern version in his translation of *Aesop's Fables* (1692), quoting it as "Sauce for a Goose is Sauce for a Gander."

We do not believe that the state would have suffered "actual prejudice" in this case, and the trial court's ruling excluding the testimony was error. *See John Joslin*, slip op. at 74. Nevertheless, the error was harmless. Through cross-examination of the state's experts, the defense explored medical issues favorable to its position. Doctor Starling was aware and so testified on cross-examination that shortly after the birth of the infant, the U.S. Public Health Service and the American Academy of Pediatrics issued a joint statement calling for the elimination of mercury content in Hepatitis B and other vaccines. Doctors Starling and Jennings also conceded on cross-examination that disagreement existed within the medical community regarding whether shaking alone, without impact, could create enough force to cause subdural hematomas and retinal hemorrhages. Defense expert witness, Dr. Schlechter, testified that although the umbilical cord was wrapped around the infant's neck at birth, the infant was healthy with no medical problems associated with the birth. Calling Dr. Yazbak to rebut Dr. Schlechter's testimony about possible adverse consequences from the umbilical cord would, at best, have contributed only marginally to the defense theory of the case and would, at worst, have undermined the credibility of Dr. Schlechter. Regarding Hepatitis B vaccinations, the record is not sufficiently developed to discern what Dr. Yazbak's testimony would have been. In its motion in limine, the defense claimed that Dr. Yazbak was prepared to testify that there are "many known and reported cases" of adverse effects from Hepatitis B vaccinations, including retinal hemorrhaging and subdural hemorrhaging. Despite that claim, at the hearing, the defense admitted that until recently locating Dr. Yazbak, it had been unable to find any expert willing to testify consistent with the defense theory. Furthermore, Dr. Yazbak's testimony would not have explained the infant's neurologic devastation and severe brain trauma. Accordingly, we conclude that the exclusion of the expert testimony did not affect the result of the trial. *See* Tenn. R. Crim. P. 52(a).

In terms of a due process violation of the constitutional right to present a defense, Tennessee law provides guidance for review of such claims. The factors to be considered are whether (1) the excluded evidence is critical to the defense; (2) the evidence bears sufficient indicia of reliability; and (3) the interest supporting exclusion of the evidence is substantially important. *State v. Brown*, 29 S.W.3d 427, 433-34 (Tenn. 2000) (citing *Chambers v. Mississippi*, 410 U.S. 284, 298-301, 93 S. Ct. 1038 (1973)); *State v. Summers*, 159 S.W.3d 586, 595 (Tenn. Crim. App. 2004).

In the present case, the record does not support a conclusion that the excluded evidence was "critical" to the defense or that the evidence bore sufficient indicia of reliability. The evidence was not critical inasmuch as it did not account for the severity of the infant's head trauma and the fractured clavicle. Additionally, the defense failed to demonstrate that the evidence had the requisite indicia of reliability. In its brief, the defense claims that it was "denied the opportunity to present an offer of proof [to establish sufficient indicia of reliability] because the trial court denied the [defendant's] motion for an expert in this area." The record does not support the contention that blame should be assigned to the trial court to account for the defendant's failure.

In summary, we conclude that the trial court committed harmless error in excluding the expert testimony as a remedy for a perceived discovery violation and that exclusion of the expert testimony did not violate the defendant's due process rights.

III. Extraneous Influence of Jury

In his final issue, the defendant argues that he should have been allowed to subpoena the trial jurors who returned a verdict, as well as two alternate jurors, to testify whether any extraneous prejudicial information was improperly brought to the jury's attention and whether any outside influence was improperly brought to bear upon any juror. The factual predicate for the defendant's claim was the testimony of the defendant's father and sister-in-law at the new trial motion hearing that they had overheard conversations among jurors and a court clerk concerning the defendant's first trial and conviction. According to the defendant's witnesses, they were outside the courthouse smoking cigarettes when they overheard a court clerk telling jurors that the defendant had been found guilty one time and overheard a juror asking "why do we have to sit and listen to the rest of the testimony" and stating that they "could find better things to do with [the] day."

The testimony of the defendant's father and sister-in-law was flatly contradicted by the testimony of Erica Peters, the court clerk during the defendant's trial, and of Eric Ericson, the trial court's chief officer. Ms. Peters denied having any conversations with any of the jurors; she explained that during breaks, she might smoke cigarettes outside in front of the building but that any jurors who smoke are taken outside to the back of the building. Mr. Ericson explained the details of the court's "very strict policy of keeping the Jury away from anyone," which included having lunch delivered to the courthouse where the jurors ate in the jury deliberation room and supervising and escorting any jurors who wished to smoke to the parking lot at the back of the building.

The trial court issued written findings and conclusions regarding this issue in its order denying the motion for new trial. The trial court wrote,

> According to the defendant's father the discussion he claims to have overheard took place on Wednesday, March 31, 2004 after lunch. The Court finds that the alleged contact would be a factual impossibility given the policy and procedures that are strictly followed after jurors are empaneled. Specifically, jurors are not allowed to smoke in the front of the building during the lunch hour where the alleged contact took place. The Court has observed the demeanor of the family members [who] testified for the defendant and finds that their credibility is lacking. Therefore, the Court is of the opinion that the defendant has not established that the jury had contact with third persons sufficient to qualify as extraneous influences. There is no need to hear proof from any jurors when no outside influence occurred.

Our review of the record persuades us that no basis exists to disturb the trial court's credibility determinations or its decision that no outside influence occurred.

Rule 606(b) of the Tennessee Rules of Evidence provides,

> **Inquiry Into Validity of Verdict or Indictment**. Upon an inquiry into the validity of a verdict or indictment, a juror may not testify as to any matter or statement occurring during the course of the jury's deliberations or to the effect of anything upon any juror's mind or emotions as influencing that juror to assent to or dissent from the verdict or indictment or concerning the juror's mental processes, except that a juror may testify on the question of whether extraneous prejudicial information was improperly brought to the jury's attention, whether any outside influence was improperly brought to bear upon any juror, or whether the jurors agreed in advance to be bound by a quotient or gambling verdict without further discussion; nor may a juror's affidavit or evidence of any statement by the juror concerning a matter about which the juror would be precluded from testifying be received for these purposes.

Tenn. R. Evid. 606(b). The purpose and origins of the rule were discussed recently in *Walsh v. State*, 166 S.W.3d 641 (Tenn. 2005). The supreme court explained that Rule 606(b) is "'grounded in the common-law rule against admission of jury testimony to impeach a verdict and the exception for juror testimony relating to extraneous influences.'" *Id*. at 646 (quoting *Tanner v. United States*, 483 U.S. 107, 121, 107 S. Ct. 2739 (1987)). The court continued,

> The rule promotes full and frank discussion in the privacy of the jury room and protects jurors from harassment by the losing party who might seek to impeach the verdict. Thus, the overarching purpose of both the federal and Tennessee Rule 606(b) is to protect the integrity of the jury's deliberative process.
>
> To this end, a juror is not permitted to testify about anything occurring during deliberations, including the juror's own internal thoughts, motivations, or emotions. The rule does, however, make an exception in three circumstances, allowing juror testimony if there has been: (1) extraneous prejudicial information, (2) outside influence, or (3) an antecedent agreement to be bound by a quotient or majority result. Further, when it has been shown that a juror was exposed to extraneous prejudicial information or subjected to improper influence, a rebuttable presumption of prejudice arises, and the burden shifts to the State to explain the conduct or demonstrate that it was harmless.

Id. at 646-47 (citations omitted).

The specific holding of the court in *Walsh* was that "Tennessee Rule of Evidence 606(b) permits juror testimony to establish the fact of extraneous information or improper influence on the juror; however, juror testimony concerning the effect of such information or influence on the

juror's deliberative processes is inadmissible." *Id*. at 649. That holding, we note, does not address the question whether juror testimony on the existence of extraneous information or improper influence may be preempted by other testimony deemed credible by the trial court that no improper juror contact or influence took place.

Nevertheless, we need not reach that question because the defendant did not take steps that were available to him to counteract any claimed error and, therefore, is not entitled to relief. *See* Tenn. R. App. P. 36(a) ("Nothing in this rule shall be construed as requiring relief be granted to a party responsible for an error or who failed to take whatever action was reasonably available to prevent or nullify the harmful effect of an error."). That is, the defendant did not make an offer of proof as to juror testimony concerning any outside influence, and we cannot speculate as to any such testimony.

Tennessee Evidence Rule 103 specifies that error may not be predicated on a ruling admitting or excluding evidence unless a substantial right of the party is affected and "the substance of the evidence and the specific evidentiary basis supporting admission were made known to the court by offer or were apparent from the context." Tenn. R. Evid. 103(a)(2). It is by no means apparent from the record what any of the jurors would have testified to, and nothing in the record indicates that, after the trial court's adverse ruling, the defendant requested the opportunity to make an offer of proof "in question and answer form" by requiring any of the jurors to testify. *Id*. 103(b) (the court "shall permit the making of an offer in question and answer form"). *See State v. Jack Rondal Dillmon*, M1997-00080-CCA-R3-CD, slip op. at 18-19 (Tenn. Crim. App., Nashville, Dec. 28, 1999) (defendant requested that trial court call in jurors regarding allegations of misconduct; trial court declined and suggested that the defendant subpoena jurors; defendant did not present any jurors at hearing and waived issue).

IV. Conclusion

For the foregoing reasons and based on the record as a whole, we affirm the judgments of conviction.

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JAMES CURWOOD WITT, JR., JUDGE